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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,934	09/16/2003	Ravi Prasad	HOETRE24ACON	2322

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EXAMINER	
HON, SOW FUN	
ART UNIT	**PAPER NUMBER**
1772	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/663,934	PRASAD, RAVI	
	Examiner	Art Unit	
	Sow-Fun Hon	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/15/04*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Withdrawn Rejections

1. The nonstatutory double patenting rejection of product claims 10-12, 15, 18, 20-21 over process claims 1-6 of US 6,649,235, has been withdrawn due to the cancellation of withdrawn process claims 1-9, and Applicant's arguments dated 12/15/04.

2. The 35 U.S.C. 102(b) and 103(a) rejections have been withdrawn due to Applicant's amendment dated 12/15/04.

New Rejections

Claim Rejections - 35 USC § 112

3. Claims 10-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether the first surface of the maleic anhydride modified polyolefin layer, and the second surface of the selected polyolefin layer, are exposed surfaces. For the purposes of examination, the claims are interpreted based on the description in Applicant's specification (page 2, lines 1-15).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 10, 13, 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubbard et al. (US 5,882,798) in view of Adur et al. (US 4,957,968) and Krueger et al. (US 4,552,714), as evidenced by Alger (Polymer Science Dictionary, 2nd edition).

Regarding claims 10, 23-24, Hubbard teaches a coated polymeric article comprising a polysilicate coating (column 4, lines 20-30) on a second surface of a selected polyolefin layer (particularly polypropylene substrate) (column 4, lines 34-44), and a first surface of a polymeric layer (primer, column 4, lines 53-61) on the second surface of the selected polyolefin layer (polypropylene substrate) (column 4, lines 53-61). Thus Hubbard teaches a coated polymeric article comprising (a) a polymeric substrate consisting of a first surface of a polymeric (primer) layer and a second surface of a selected polyolefin layer (polypropylene), and (b) a polysilicate coating on the primer layer. The polymeric article can be a polyolefin (polypropylene) film (column 4, lines 40-45).

Hubbard fails to teach that the first surface of the polymeric (primer) layer primer layer is the first surface of a maleic anhydride modified polyolefin layer.

Adur teaches that surfaces of polyolefins such as polypropylene require a proper primer to adhere to glass surfaces, and has a composition comprising a polyolefin, which is adherent to glass and polyolefins (column 1, lines 5-20). Commercially available polypropylene grafted with maleic anhydride is one example (column 4, lines 1-12). Glass is polysilicate, as evidenced by Alger.

Alger teaches that silicate glasses are also known as polysilicates (silicate polymer section, pp 520-521).

Thus Adur teaches a second surface of a selected polyolefin (polypropylene) layer primed with the first surface of a maleic anhydride modified polyolefin (polypropylene) layer in order to adhere to a polysilicate (glass) surface.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used the maleic anhydride modified polyolefin layer of Adur as the first surface (primer) layer of Hubbard, in order to obtain a polysilicate coated polyolefin article with good adhesion of the polysilicate coating to the polyolefin substrate.

Hubbard in view of Adur, fails to teach that the polymeric substrate consisting of a first surface of maleic anhydride modified polyolefin layer and a second surface of a selected polyolefin layer, is coextruded.

Krueger teaches that a layer of polyolefin (polypropylene) is coextruded with a layer of maleic anhydride modified polyolefin (polypropylene), wherein the maleic anhydride modified polyolefin is used as an adhesive layer (column 1, lines55-60). Coextrusion provides a one-step process in the formation of the maleic anhydride modified polyolefin/polyolefin substrate.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have coextruded the polymeric substrate of Hubbard in view of Adur, consisting a first surface of the maleic anhydride modified polyolefin layer and a second surface of the selected polyolefin layer, in order to provide the bilayer polymeric substrate in one step, as taught by Krueger.

Although Hubbard in view of Adur and Krueger, fails to teach the oxygen transmission rate of the article, a chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. See MPEP 2112.01 (II). In the instant case, the polysilicate coated, coextruded maleic anhydride modified polyolefin primer/polyolefin substrate of Hubbard in view of Adur and Krueger, has the claimed oxygen transmission rate within the range of 3 to 15 cc/m2/day, by virtue of the combination of its chemical composition, laminate structure, and process of making.

Regarding claim 13, Hubbard teaches that bottles are much thicker than films, typically 14 mil in wall thickness (column 16, lines 1-5), meaning that higher substrate thicknesses provide more structural support in order to obtain free-standing articles such as bottles. Therefore although Hubbard fails to teach the claimed thickness range of from about 20 to about 50 mil, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a substrate thickness within the range of 20 to about 50 mil, in order to provide the desired structural support for the article.

Regarding claims 14-15, Hubbard teaches that the article can be a polymer film (column 2, line 10) (claim 14), which is biaxially oriented (column 17, lines 30-35) (claim 15).

Regarding claim 16, Hubbard teaches that the substrate can have a thickness of 1.2 mil (column 8, lines 60-65), which is within the claimed range of between about 0.5 to 2 mil prior to coating.

Regarding claims 17, 22, Hubbard teaches that the article can be a bottle, jar, lidlock (lidstock) or blister pack (column 4, lines 45-50).

Regarding claim 18, Hubbard teaches that the selected polyolefin is polypropylene (column 17, lines 30-35).

Regarding claims 19, 25, Hubbard teaches that the polysilicate coating on a thin film has a thickness between 200 to 500 nm (column 4, lines 7-8) (claim 19), wherein 500 nm is 0.5 μm (claim 25), and can go up to about 1000 nm (column 4, line 10) which is 1.0 μm.

Regarding claim 20, Hubbard teaches that the polysilicate coating comprises a lithium polysilicate (column 3, lines 30-35).

Regarding claims 21, 26, Hubbard teaches that the polysilicate coating comprises a lithium-potassium copolysilicate (column 4, lines 20-25).

5. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubbard et al. in view of Adur et al., as evidenced by Alger, as applied to claims 10, 13-22 above, and further in view of Jones (US 3,442,686).

Hubbard in view of Adur and Jones, has been discussed above, and fails to teach a topcoat of nitrocellulose on the coated article.

Jones teaches a silicate (silicon monoxide) coated film of biaxially oriented polypropylene (column 8, lines 1-6) whereby the sealable topcoat provides a synergistic

effect on initial barrier properties (column 4, lines 60-68) to gas and liquid (abstract). A preferred sealable topcoat is nitrocellulose (column 5, lines 29-33). The silicate (silicon oxide) coatings are transparent flexible coatings in the glassy state (flexible glass) (column 1, lines 10-20).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided a topcoat of nitrocellulose, taught by Jones, to the polysilicate coated coextruded polyolefin substrate of Hubbard in view of Adur and Krueger, in order to provide it with synergistically improved barrier properties.

Response to Arguments

6. Applicant's arguments with respect to claims 10-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Hon

Sow-Fun Hon
04/15/05

/Harold Pyon/
HAROLD PYON
SUPERVISORY PATENT EXAMINER
4/17/05